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ABSTRACT

Characteristics of schools that discourage or encourage the introduction and use of new ideas are discussed in this working paper of the National Seminar on the Diffusion of New Instructional Materials and Practices. Conference participants consider these questions: Does the school need to have a sound history of use of innovation before it is possible to get it to use new products? Does the school need general community support in order to implement innovative products? What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How is flexibility defined? How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school? How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation? Is the level of innovation-adoption of new materials or ideas influenced by the tax level of the community? Is there any correlation between the level of support that a school receives from federal and state sources and the rate of adoption of innovative materials and ideas? Related documents are SO 006 339 through SO 006 344. (SHM)

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NATIONAL SEMINAR ON THE DIFFUSION OF NEW
INSTRUCTIONAL MATERIALS AND PRACTICES

Wingspread

June 1, 2, 3, 1973

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4.0 CHARACTERISTICS OF THE SCHOOL: What Are The Characteristics Of Schools That Discourage Or Encourage The Introduction And Use Of New Ideas?

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4.0 Characteristics of the school: What are the characteristics of the school that discourage or encourage the introduction and use of new ideas?

Since I do not have actual long-term experience of a public school teacher I can only speak as a helping agent. Two kinds of experiences form the basis for my remarks. One is the experience of the Joint Council of Economic Education Programs, primarily the Developmental Economics Education programs (DEEP). The other is the Social Science Education Consortium's TRIAD (Team Regional Inservice Analysis and Dissemination) Program.

One characteristic of both programs seems to stand out. That is, there needs to be one critical individual with a school system who accepts an idea or who has an idea and who is willing to move toward change based upon that idea. Some of the things that individual has to be able to do are to 1) marshall a support base. [This is a support base of two kinds of clients, users of educational innovations (teachers) and administrators.] 2) be willing to team up with outside change agents, in order to form an "inside-outside" team so that educational innovation can take place and 3) have the willingness to seek the financial support necessary to institute educational innovations.

Two cases come to mind. The first is the case of Adams County District 50, Westminster, Colorado. James DeBell, who was appointed as a social studies supervisor in that district had a notion that the social studies program needed improvement in that district. Once Mr. DeBell discovered that the social studies program needed changing he moved rapidly to seek information about innovation. He sought information from the Social Science Education Consortium, the ERIC system, local university personnel,

and other school districts in his area. He sought funding from a variety of agencies including the Office of Education, and the National Science Foundation. He also was able to enlist help and support from a number of individuals from whom he sought information. Once support was found he was able to enlist his teaching staff in serious consideration of curriculum change in social studies. It should not go without saying that DeBell is a very dynamic person. He is able to solicit support as well as commitment and is able to get teachers excited about change. At the same time that DeBell was soliciting support from the teaching staff he was also able to marshall support from his administrative staff. In three and one-half years Mr. DeBell has been able to entirely revamp the social studies program K-9 in his district. He is now using a similar approach with the senior high school. Another case in point is Shawnee Mission, Kansas. The individual who has moved that district (or has started to move that district) is Mr. Charles Beaty. Mr. Beaty used the Guidelines from the National Council for the Social Studies as a model for examining where that district was in terms of its social studies program. He was able to solicit an ample amount of administrative support for having teachers engage in self-analysis of their programs. The outcome of the Guidelines self study was an establishment of both general objectives as well as specific program objectives for the social studies program, grades 7-12. After establishing objectives Mr. Beaty moved to having a series of teams begin to develop critical questions about curriculum materials. He felt that he needed help in curriculum analysis and solicited the help of the Social Science Consortium in order to enable teachers to critically examine new materials. The Consortium's advice to him was to 1) make sure the general objectives are

agreed upon, 2) select people who are willing to work on the hard job of curriculum analysis and 3) solicit ample amounts of materials from national publishers. At the present time, the Shawnee Mission teams of teachers are in the process of selecting for pilot test only curriculum materials for their program that they think might enable them to reach their stated objectives. At this writing little information is known about 1) the willingness of publishers to provide materials for analysis, 2) the materials that have been selected and 3) the plans for inservice, pilot testing and evaluation of the materials selected.

4.0 CHARACTERISTICS OF THE COMMUNICATIONS NETWORK: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.2 Does the school need general community support in order to implement innovative products? This must vary; however, if the product teacher sensitive subjects or uses certain techniques which involve an open classroom or free classrooms, then it is probably essential to have support from the community if there is a well organized conservative political action group already in operation.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do ;you define flexibility? This depends on the kind of innovation. If the innovation requires open classrooms, independent study, classes other than one semester of five day a week fifty minute sessions, then the school has to be flexible about scheduling and use of space. If it involves active student participation and small group work, it must be flexible about discipline and noise in the classroom, and possibly the use of out-of-class activities. Possibly, the principal must be willing to have teachers with experiment with new techniques and ways of organizing the subject matter. Many of the projects do not involve serious changes in the mechanics of running the school and might, therefore, not require much flexibility at all.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community? Definitely. Richer districts often are the source of support of the national curriculum projects. This may not be as true for local innovation.

4.0 "Characteristics of the School: What are the characteristics of schools that discourage or encourage the introduction and use of new ideas?"

Research has indicated a number of characteristics which tend to be true of innovative schools. These may provide helpful guidelines for dissemination efforts. I believe an important thing to consider is the reason why such characteristics may relate to innovativeness for any particular school and the conditions which may provide exception to the general findings. The Louisville Kentucky school district provides an example worth studying. A few years ago it appeared to lack many of the characteristics normally associated with innovativeness. When Newman Walker became superintendent in 1969, he used his knowledge of change processes to achieve the introduction and use of many new practices and ideas despite the appearence of adverse conditions. The story is told in the April 1973 Phi Delta Kappan journal.

A history of non-innovativeness may only be important if it indicates that the conditions for introducing new ideas do not currently exist. The timing of general community involvement and support for an innovation can be very important. Educators may hold back from innovating, or may fail in their attempts to innovate, due to a lack of political sophistication. Schools tend to be highly political enterprises. It seems frequently true that a small number of persons with political understanding and ability and power in the situation are able to control the introduction or non-introduction of new ideas. Our Northwest Regional Educational Laboratory Rural Schools Program is working on a procedural model and training materials for community involvement in improving rural schools. It includes the identification of key representatives of diverse special interest

groups who are then introduced to goal identifying and problem solving techniques which they can apply to school improvements and to their ways of working collaboratively with each other.

I would define flexibility of a school in terms of such norms as openness, risk-taking, trust, and collaborativeness, along with such procedures as two-way accountability, two-way communication both horizontally and vertically, clear rewards for attempting innovation, and a lack of negative sanction for failing in an improvement innovation attempt. I would add that an especially important norm seems to be one that allows for open identification in dealing with problems rather than a more usual norm of covering up problems and negative aspects of improvement attempts. I think of an illustration in a middle-sized city school district I am familiar with where tremendous energy was put into public relations about the importance and success of the innovative practices that presumably existed. Faculty members throughout the system were considered disloyal if they talked about any problems that might exist. Therefore, problems were seldom dealt with in a constructive manner, the presumed innovations operated very poorly, the system was highly defensive about the idea of objective data gathering that might have contributed to improvements, and staff morale was generally very low.

The level of academic training of educators is not necessarily an issue in school innovativeness. Contrary to general assumptions there is evidence that new teachers are too concerned with other things about their role and self-confidence and acceptance in the school social pattern to be involved in much innovativeness although

there are obviously exceptions to this. At the same time there is some evidence indicating that older teachers who have high confidence in their roles and experiences may be found to be high innovators. Former findings come from the research and development center in Texas. The later from the Institute for Social Research at the University of Michigan. An important issue seems to be what a person has been trained in and the norms that exist in that individual's school district to support expression of personal convictions and innovations and desires.

Many research studies have found that school innovativeness is correlated with higher levels of financial support be it from local or state and federal sources. I derived several implications from this which seem supported by the experiences we have been having in the last few years. One is that there are multiple competing priorities for any school district in it's desire to do well and therefore it is critical for all but the few wealthy school districts that an innovation be conceived and constructed in as economic a manner as feasible. The thing that stands out in our experience, however, is that cost is the other side of the coin of effect. While gross cost may provide an initial barrier to attempting an innovation, personal experience of high effectiveness potential of an innovation can lead educators and their community to give a seemingly costly innovation priority. It should be noted that this cost effective principle may be blurred in a community where general tax-payer revolt is under way. Some are arguing that the way out of such tax-payer revolt situations is precisely by giving educators increased capability to demonstrate effectiveness. I tend to agree, and see the issue as a complicated and somewhat paradoxical one. The introduction of

training to provide such capabilities represents the kind of innovation that we are working at. The introduction of changes toward increased kinds of inservice training to these ends can call for some pump priming in the way of financial support. Once initiated in a sound long-range plan, costs of a sophisticated inservice training program are not necessarily great. Spokane, Washington District 81 provides a good illustration of how this can be accomplished. The history of their program is described in a recent issue of Theory Into Practice in an article by Harry Finnegan.

4.0 Characteristics of the School -- What are the characteristics of schools that discourage or encourage the introduction and use of new ideas?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

On the contrary, in my experience, school personnel tend to get jaded after so many years of innovation and often opt for a less arduous, "settling-in" period.

4.2 Does the school need general community support in order to implement innovative products?

It does not usually need this support for implementation, but certainly does to keep the new program. This community support comes from proven effect on the youngsters, and not from the theorizing of "experts".

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

Some teachers and the principal must be flexible, unless the program is really not new.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

Very little, I think. Their attitudes and innate abilities are much more important.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation?

Same as above.

4.6 Is the level of innovation-adoption of new materials or ideas influenced by the tax level of the community?

Only with respect to the expense of the new curriculum.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovative materials and ideas?

A support structure that gives the school flexibility and control helps very much. One that is tied to detailed federal guidelines usually retards high-quality innovation.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 The age of teachers has little to do with hospitality, or lack of it, to innovation. My experience with the Schwartz Citizenship Project, in attempting to diffuse new ideas in citizenship education, has convinced me that the type of professional training, personality characteristics, perception of school status, and not age, are decisive in the readiness of teachers to accept new ideas.

4.2 The innovation cannot be imposed by an ambitious administrator or an overbearing teacher who took a course at a university or went through a training program at the Consortium and is impatient to get his new insights accepted by his or her colleagues.

4.3 Vested interests of teachers must be understood and respected. Human insensitivity to the degree of teacher security has defeated the best innovations. An innovative practice which substantially changes the status quo must be preceded by a careful examination of its effect on the real or perceived interests of the teachers. Teachers who are found to fear the introduction of new curricula or new methodology must be reassured and their fears dispelled or at least quieted.

4.4 All innovations must in some way take account of established school traditions and must include safeguards for the preservation of teacher autonomy.

4.5 Innovations are not automatically better than that "old routine." We must free ourselves from the wide-spread conviction that a "new idea" is automatically better than an "old idea." It is the duty of the innovators or the diffusers to provide evidence for the teachers and the students that the new ideas and practices they prepare are indeed better than the established practice.

4.6 Time. Sufficient time must be allowed for the testing of innovations and for their diffusion. We, in social studies, seem to be a particularly impatient breed. We have introduced a variety of new projects, in which great human and material resources were invested. Now, after only a few years since the introduction of these project materials, without much scientific evidence, many are ready to pronounce the new approaches as failures and to develop new projects. The Consortium has already done an excellent job of insisting on a systematic evaluation of the available project. It must persist in this effort.

4.1 We have found that some schools with no history of innovation are willing to try a new program while some who have been trying new things reach a saturation point and will not try anything else. This has been particularly true in those schools near a university which have been saturated by innovative programs from the School of Education.

4.2 We have found that a carefully planned program to inform or orient the public must follow any innovation in the schools in order to get community support and ensure the continuation of the program. This must not be neglected. Both in the SEED program and our pre-service teacher training program in the schools, the community was brought in to see the program early and become acquainted with its advantages. In both cases, they ware convinced and gave the programs full cooperation.

4.4 With regard to the "New Math", I have often found when visiting schools that those teachers who gave the time and effort to take special courses and workshops in mathematics were the ones who did try to teach the materials properly whereas some of those who did not put in that extra effort were often found to be teaching the new materials badly or not at all. In a sense, even if the school had adopted a new program, the teachers did not teach it as it was intended to be taught if they were not properly prepared for it.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

Some schools have earned reputations as "lighthouse" schools. Such schools accept a special mission for testing new products and ideas. Strangely enough, such schools often avoid full-scale adoption and installation of new ideas. Rather, they remain in a continual testing and experimentation stage.

However, a school need not have a tradition of testing new products in order to adopt a new program. Indeed, very few people actually have to be committed to an idea for it to be successfully adopted. It certainly helps if the principal encourages innovation in his school and rewards teachers who try new ideas and products. At a minimum, the principal must be one who is at least neutral or avoids discouraging teachers who wish to try new ideas. In addition to the principal one or two teachers must be interested in trying a new idea, and the idea is more likely to succeed if these teachers are not faced with hostility from their colleagues. Ideally, they should receive peer encouragement. At a minimum, there should be neutrality on the part of the department.

It is not clear what the phrase "sound history" means. If this is interpreted as meaning that the school should not have experienced severe failure, I suspect the school does need a "sound history." If an innovative program has recently brought severe criticism to the school and innovation has been shown to cost more in time, energy and prestige than the results warrant, it clearly will discourage innovation.

4.2 Does the school need general community support in order to implement innovation products?

By general community support, I interpret this to be providing sufficient resources for the school to meet its obligations while maintaining a favorable attitude toward the schools, showing pride in its accomplishments, etc. This kind of general community support is needed. It is not necessary, however, to have general community support for innovation, although it is desirable to have that support if it is available.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

The degree of flexibility depends a bit on the demands made on the school. In the program American Political Behavior developed at the Social Studies Development Center, relatively little flexibility was required, as the program was intended for use by a single teacher within his own classroom. The major type of flexibility needed in this case is flexibility in making adoption decisions. If the APB program must be approved by many groups prior to a teacher having an opportunity to use it, then inflexibility in the decision process complicates and retards adoption. But, flexibility in curricular design in the school is not necessary for the use of American Political Behavior.

In the new program we are preparing under the auspices of the American Political Science Association, we are demanding a high order of flexibility on the part of the school. Some of the instruction occurs in the classroom; other instruction takes place in the school itself. Some instruction is

individualized; other elements occur in small groups; and still other aspects take place with the class as a whole. We are also asking for flexibility on the part of other teachers within the school and on the part of the school administration. The amount of flexibility we expect of a school that chooses to use the new program will complicate the adoption process.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

I don't know the answer to this question. I have some hunches, however. I think level of training may be less significant than recentcy of training and the type of institution from which a person has received his training. It is not necessary, in my opinion, for teachers to have master's degrees or for supervisors and administrators to hold doctoral degrees in order to have an innovative school. Indeed, some of the most rigid schools are those in which faculty and administration take a great deal of pride in the advanced degrees they hold. The result is frequently a very stuffy place, modelled after a stereotype of a private college. On the other hand, if teachers lack subject matter competence in their fields or if they are products of weak teacher training programs, they are frequently out of touch with new ideas and are insecure when challenged by new ways of conceptualizing their responsibilities. Teachers who are insecure about their training and unfamiliar with leading ideas in their field are poor bets as innovators.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption or innovation?

Again, I simply do not know the answer to this question. My hunch is, however, that the optimum time to find a teacher who is willing to accept new ideas is after he has taught three or four years and before he has taught a decade. The beginning teacher is too insecure within the school. He is struggling very hard to establish himself and tends to be worried unduly with problems of classroom discipline and with creating a recognized position for himself within the school. He also is busy learning the subject matter for the courses he teaches. He tends to draw heavily on his most recent college experience and to model himself, in part at least, after leading instructors in the school. After three or four years, the teacher has become about as secure as he will become in terms of his mastery of the subject. At this stage, he frequently becomes a bit restless for new challenges. For many teachers this is the right moment to attract them into new and more exciting ways to teach.

There are many exceptions to this rule, of course, but my experience is that many teachers find it difficult to change after ten to fifteen years of teaching. If they have not been interested in changing their teaching procedures prior to that time, they often become defensive about what they are teaching. While they talk about the need to change, their resistance to new ideas has become a part of their professional existence. Frequently the brightest and most able of the teachers have either left teaching by this period or have been pulled into administrative roles. Often those teachers remaining are people who have settled into routine roles as classroom teachers

and are difficult to change. *Again, I do not wish to exaggerate this because* there are a great many teachers who defy this generalization. Nevertheless, as a general rule, we would not seek out teachers with 20 or 25 years of experience as ideal types for testing new ideas.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community?

I suspect is is, but I am uncertain. If tax level refers to the amount of funds available to buy instructional materials, it seems reasonable to believe that those schools that have more money are more likely to adopt and use a wide range of instructional materials than those that lack funds. They are also less likely to depend solely upon materials purchased by the state in state-adoption situations.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovation materials and ideas?

State and federal monies have advanced innovation in certain ways. For example, the existence of language laboratories and overhead projectors were facilitated greatly by federal funds. Schools have a greater number of guidance counselors because of special funding for these positions. Federal funds have made various kinds of vocational education programs available that would not have been offered otherwise.

Changes in social studies instruction are somewhat less clear. I referred earlier to the effect that state adoptions have on the innovation. If innovative products are placed on state adoption lists, the state will buy these products

for the schools, and the opportunity to penetrate the schools are enhanced. On the other hand, if these materials do not make the state adoption list and the state does not buy the materials for the schools, state funds clearly retard the innovation as the school must use its own funds to buy the innovative materials. Therefore, it is not possible to give a clear answer to this question.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

No, not in my experience. We find increasing numbers of school systems that would not be regarded as "innovative" seeking to use our products. Naturally, there is always the ten percent of school systems nationally that will adopt almost any innovation, and it is easy to get products into those schools. However, careful cultivation of other systems can be equally successful if one has the resources to do it. The problem is that most developers are not equipped with the personnel who can handle this effort.

4.2 Does the school need general community support in order to implement innovative products?

Increasingly, this is becoming a factor. Again, this requirement puts a greater strain on the developer. We are now developing community components to all our programs and are seeking ways of involving parents and community people in the development process at the earliest stages. Undoubtedly, this will increase their receptivity with communities. School systems are increasingly developing more sophisticated ways of involving communities in curriculum decision making.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

Flexibility is the ability to adjust schedules, physical space, and teaching styles to the requirements of new products. Naturally, different products are more demanding in these areas than others. All, however, require some alteration of the existing system.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

I have no data to support this question one way or another. My hunch is that it doesn't make a great deal of difference.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation?

No data here, either. I doubt if age is a very significant variable.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community?

Most definitely. Innovations are expensive, and the more affluent systems are usually the first to adopt.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovative materials and ideas?

Most definitely, yes. In my limited experience, the availability of Title I and Title III funds has made a substantial difference in the adoption of innovation.

4.8 Others

No comment.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

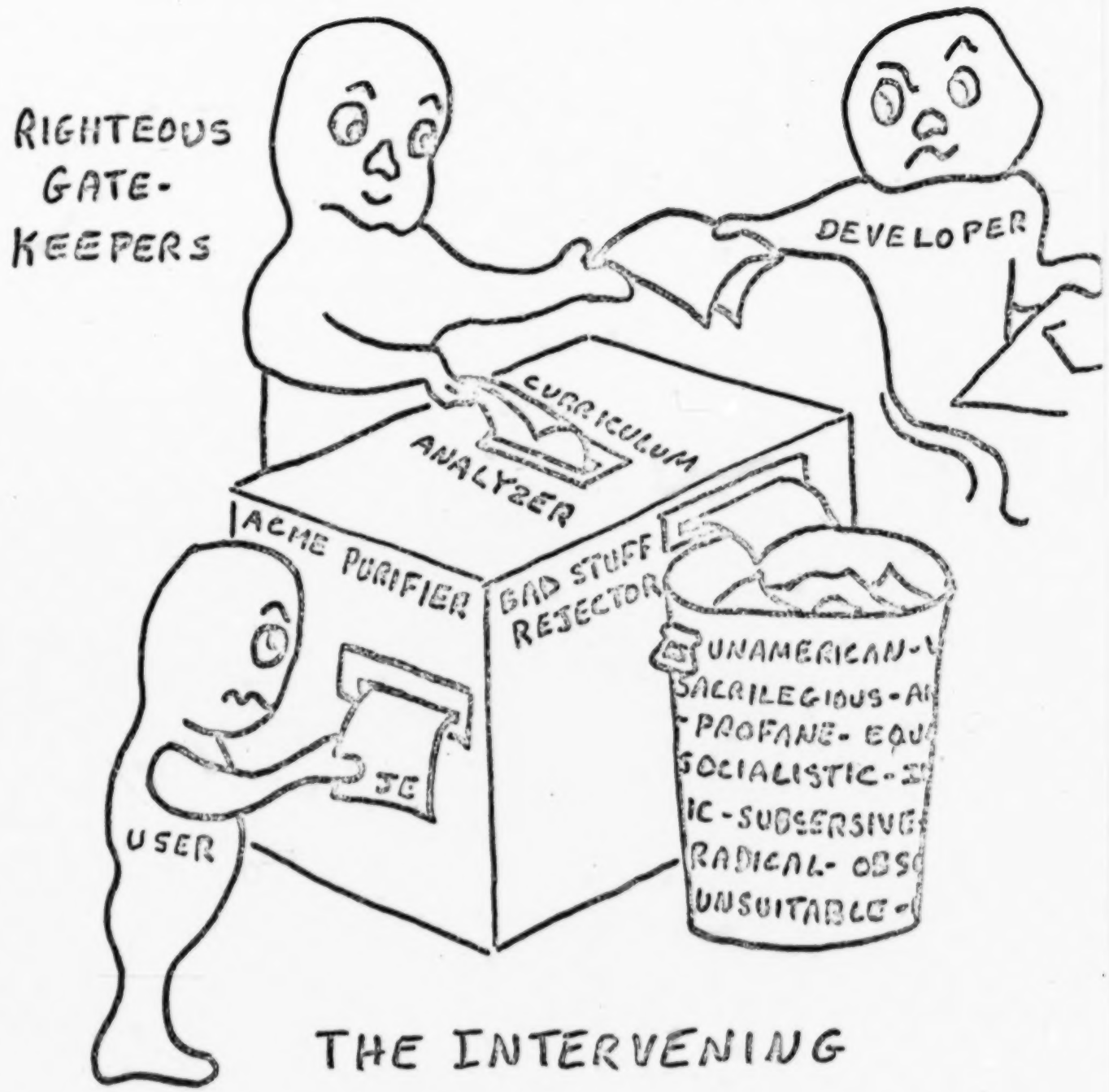
4.1 The history of adoption of innovation by a school would seem to have dimensions that provided more predictive power than simple chronology. For example, one can identify the extent to which personnel in a school maintain contact with other, earlier adopters of innovative materials; the degree of openness to rational pursuasion as opposed to committment to tradition; and staff perception of professional prestige associated with a new program.

4.2 It seems apparent that general community support might be more properly considered general acquiesence. Support and opposition to innovation more often come in the form of small scale group efforts and most school districts get along very well most of the time by providing careful, systematic procedures that offer opportunity for community input to adoption.

4.3 One extreme of the range of possiblities for adaptation of new products in school districts--one that suggests very little flexibility--is shown in a pictorial way in the cartoon "The Intervening Variable Model." In a setting where flexibility did prevail, where an ongoing effort to attain curriculum goals and objectives included procedures for objective materials analysis, a more positive outcome than the one pictured in the cartoon might be expected.

4.4 It seems reasonable to hypothesize that higher levels of professional training would be associated with higher rates of innovation especially if innovation was perceived to be professionally prestigious.

4.6 There is research evidence to show that educational innovations are more likely to occur in school districts that have high levels of financial support.



THE INTERVENING VARIABLE MODEL

4.0 CHARACTERISTICS OF THE SCHOOL:

4.1 DOES THE SCHOOL NEED TO HAVE A SOUND HISTORY OF USE OF INNOVATION BEFORE IT IS POSSIBLE TO GET IT TO USE NEW PRODUCTS?

In most cases the history of innovation in schools is a positive indicator of its willingness to adopt new materials. I strongly feel that a school's commitment to innovation throughout their curriculum is extremely important in encouraging its teachers to explore new methods and materials. However, in many cases there are instances of a social studies department within a school going on its own and adopting a new program or a new mode of instruction. In the last few years I think I could generalize and say that science departments and social studies departments seem to be the most interested in adopting new procedures and/or materials. English departments were in the forefront of this movement a few years ago, but in the Chicago suburban area they seem to have less interest in new materials at the present time.

4.2 DOES THE SCHOOL NEED GENERAL COMMUNITY SUPPORT IN ORDER TO IMPLEMENT INNOVATIVE PRODUCTS?

Although community support is helpful it is not always essential in its effect on adoption of the curriculum materials. In most cases, unless the materials are highly controversial, such as the MACOS package, materials can be implemented without the knowledge of the community. From my own experiences I would suggest that this be the approach taken. There seems to be a group within any community that resists educational change. If a department or a school publicizes the fact that it is adopting a radically different approach, this group nearly always coalesces behind a leader in an attempt to stop the proposed change. Another tactic that has been

successful at Lake Park is the careful selection of a "citizens committee." This committee, selected for its probable favorable opinions, can be used to ease the shock of a proposed curriculum and/or instructional strategy change.

4.3 WHAT DEGREE OF FLEXIBILITY DOES A SCHOOL NEED IN ORDER TO READILY ADOPT OR ADAPT NEW PRODUCTS AND IDEAS? HOW DO YOU DEFINE FLEXIBILITY?

Flexibility means the ability of a school or teachers to utilize new ideas or new materials without a great deal of alteration in the schedule, in facilities, and "mind sets" of instructional staff. Perhaps flexibility in the latter is more important than the others. The school must be willing to make some alterations in the environment or the schedule in order to facilitate instructional or curriculum change.

4.4 HOW DOES THE LEVEL OF ACADEMIC TRAINING OF TEACHERS, SUPERVISORS, AND ADMINISTRATORS AFFECT THE ADOPTION RATE OF INNOVATION WITHIN A PARTICULAR SCHOOL?

From my experiences, the level of academic training of teachers, supervisors, or administrators does not effect the adoption of curriculum innovations. Rather than level of academic training, it would appear that attendance at NSF or NDEA institutes, membership in professional organizations, and attendance at local or regional meetings is a more significant determinant of innovation. As a matter of fact, teachers that are highly trained in a specific subject matter are frequently more inclined to criticize some of the "new social studies" materials as being somewhat less than scholarly or weak in substantive content.

4.5 HOW DOES THE MEDIAN AGE OR MEDIAN LEVEL OF EXPERIENCE OF THE FACULTY OF A SCHOOL OR PERSONS RESIDING IN THE COMMUNITY AFFECT THE LEVEL OF ADOPTION OF INNOVATION?

I do not think the age of the community residents

significantly effects the adoption of curriculum materials. Our area has a high percentage of young, married families and yet has a strong conservative element that resists curricular change. I do feel the median age of the faculty is generally an important factor. Although there are exceptions to this generalization, a youthful social studies staff is nearly always more willing to accept innovative ideas and to try new products, than one which is older either in age or terms of experience. I also think this is a circular concept. Those schools which are utilizing new social studies materials are more apt to attract younger, more enthusiastic teachers than those which are still following traditional approaches to education.

4.6 IS THE LEVEL OF INNOVATION ADOPTION OF NEW MATERIALS OR IDEAS INFLUENCED BY THE TAX LEVEL OF THE COMMUNITY?

There probably is a correlation between a relatively prosperous school district and adoption of innovative materials; however, I do not think this is a cause-effect relationship. Factors such as employment of brighter teachers, a more professional attitude on the part of the staff, and more effective supervisory personnel are probably more responsible for the encouragement of educational innovation than the tax base itself.

4.7 IS THERE ANY CORRELATION BETWEEN THE LEVEL OF SUPPORT THAT A SCHOOL RECEIVES FROM FEDERAL OR STATE SOURCES AND THE RATE OF ADOPTION OF INNOVATIVE MATERIALS AND IDEAS?

Once again, there may be a relationship between outside funding sources and the rate of adoption of innovative materials. However, once again, I do not believe it is a cause-effect relationship. Those schools which actively solicit outside support generally have more involved and interested faculties. They usually have supervisory personnel with released time to submit proposals and

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

As a matter of fact, too much history of innovation without planning for long-term internalization is a significant negative factor.

It helps to have leadership districts in an area move into a product providing the adoption or adaptation is well planned.

4.2 Does the school need general community support in order to implement innovative products?

This does not seem to be particularly important except in those cases where the school-community relationship is a problem apart from the innovation. In such cases, the implementation of any innovation is a touchy question. Furthermore, if the change is brought in as an answer to a problem, it will be involved in the politics of the situation. It may be necessary to operate this way, but it is not desirable to think of such an implementation as exemplary.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

Depends completely on the nature and scope of the new product to be adopted. The greater the intellectual and/or operational change the product will cause, the greater the flexibility needed. I determine flexibility of an elementary school by spending some

time talking to the principal. Probably the key question is on what basis does he make decisions regarding possible changes in the operation of the school. For example, if he usually thinks first of why, according to district policy or state law, you can't do something, his real flexibility is minimal. On the other hand, if teacher or other outside suggestions are considered first in relation to their effect on the learning of children and if positive, adjusted to meet real legal restrictions, a degree of flexibility is evident. True flexibility is apparent when the principal sees his role as suggesting and encouraging change as part of the continuing evolutionary development of the school's program. Ideally, he sees today's successes as experience and evidence to be used in constructing tomorrow's plans.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

I know of no significant relationship here at the elementary school level.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation?

There is a popular belief that younger teachers, etc., are more willing to undertake innovations. At the elementary level I know of no evidence to support this point of view. Our experience is that we need people young in point of view and this may or may not be related to chronological age.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community?

At the extremes, yes; otherwise not really. Schools with a great deal of tax support tend to try new things at the dabbler level because they can afford the expense. Schools with very minimal support can only try those products related to sources of outside funds. Most schools, however, have the funds to try out innovations if they feel it is important enough to them at that time.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovative materials and ideas?

Many innovations have been adopted solely on special federal or state funding like Title I, ESEA or Title III, NDEA. This leads to what can be a false level of implementation since too many districts drop the program when the special aid is no longer available. Schools need help in planning for the use of special funds as a means of improving the long-term quality of their operation.

4.8 Others.

The major characteristic of a school or school system which tends to encourage or discourage the introduction and use of new ideas seems to be the staff relationships which exist between the principal and other administrators and the teachers and also within the teaching staff. Change in itself causes some anxiety and insecurity for most individuals and, therefore, an autocratic administration which, by action, identifies checking up on people,

neatness of rooms, and timeliness of reports as its goals, tends to cause people to play it "safe." On the other hand, a real operational commitment to instructional improvement by the school leadership can catalyze significant educational change in any school situation.

4.0 What are the characteristics of schools that encourage or discourage the introduction and use of new ideas?

Almost any school may adopt a new product if the need is great enough. A school with a history of innovation may be more likely to experience success, however, and with less opposition from teachers because of having earlier established an open atmosphere conducive to experimentation and innovation. It is the history of the people, rather than the history of the school system which will affect the acceptance and success of innovation. Among school personnel without a history of using innovative products, a product is more likely to be adopted if it is not perceived as being greatly different from what is being done at the time.

General community support may be very important if the product is to be implemented with Title I funds since Title I regulations require community involvement through an advisory board. Regardless of the source of funds for implementation of the innovative product, community support is helpful and recommended but not necessary. A new product is more likely to be adopted and the adoption is more likely to be successful if there is general community support or at least a neutral community attitude together with support from a nucleus of interested adults such as parents' groups. In its early days, our project used PTA's and other parents' groups as a means for recruiting tutors. School systems using volunteer tutors often still do recruit their tutors this way.

Flexibility first of all presumes the recognition of a need for change to accomplish existing goals in a more effective manner. Flexibility also presumes the ability and willingness of personnel to adjust to changes in work habits and conceptual patterns necessary for implementation of new products. In order to be considered flexible, a school needs a combination of administrators and teachers who are mutually willing to examine and accept new ideas and products which shows greater promise of meeting needs than existing materials and methods.

Any school needs a high degree of flexibility to be able to adopt new products successfully. A hallmark of such flexibility is mutual confidence and communication between teachers and administrators. Administrators must be listening to teachers to learn about their needs and their ideas but teachers need to adopt positive attitudes toward innovation suggested by administrators.

Our experience indicates that there is no high correlation between the level of academic training of the professional staff or a school system and the likelihood that they will adopt innovative products. Often, we have had the greatest difficulty working with school systems where the professional staff are well-educated, perhaps because these teachers and administrators believe they are capable of handling the schools' needs themselves. In general we would say that the more sophisticated professionally the staff perceives themselves, the less likely they are to accept innovative products.

We do not believe there is a high correlation between the median age or the median level of experience of the professional staff and the likelihood they will adopt innovative products. There does seem to be a high positive correlation between acceptance of innovation and participation in in-service programs and professional meetings, however. Interaction with other teachers, with university personnel and with product developers seems to facilitate acceptance of innovation regardless of the participant's age or teaching experience.

Implementation of innovative products is affected by tax level of the community. Schools in wealthy communities and those in communities which receive large amounts of federal funds are more likely to adopt products which require a financial investment. Schools in so-called middle class communities are more likely to adopt innovative ideas and/or adopt innovative products via the exploitation diffusion model.

We have found that school systems receiving federal funds which can be used to buy tutoring kits and/or to hire paraprofessional tutors are much more likely to adopt our product. Other schools will buy tutoring kits but rely on volunteer

tutors. We rarely experience the exploitation diffusion model, however, because the per-pupil cost of tutoring kits is low (about $3.00 for the reading tutorial and $4.00 for the math tutorial).

The physical facilities in the school system may discourage adoption of innovative ideas and products. For example, an open classroom plan may not be possible in an old building and a year-round plan may not be possible in a building without air-conditioning. Since tutoring can take place in hallways, cloakrooms, storage closets or any other area with adequate lighting and some visual isolation, the kind of physical facilities available do not affect implementation of our product.

4.0 Characteristics of the school: what are the characteristics of schools that discourage or encourage the introduction and use of new ideas?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

Such a history helps, but I believe that a more important factor is the presence, or absence, of an advocate for a particular innovation. In my own work over a three year period with schools interested in new social studies curricula, the implementation of new materials occurred in those districts which had an advocate in an influential position. An advocate is necessary not only to obtain adoption of an innovation but also to fight for the financial and human resources necessary for implementing the innovation.

In his study of the Illinois Gifted Program, Ernest House noted the importance of internal advocacy. I do not know of other studies which have focused on advocacy; advocacy deserves more attention.

4.2 Does the school need general community support in order to implement innovative products?

No, it does not need general support. Opposition, however, is fatal.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

My own experience suggests that academic training is a relatively minor factor in the adoption of innovations. Although such training may be correlated with high adoption rates, I believe the real cause of high adoption rates is more likely to be underlying variables (personal ambition, concern for educating the young, etc.) than it is the academic training of innovators.

4.8 Other

After having answered several of the sub-questions in this section, I realize that I disagree with the premise of the main question. I do not believe that it

makes much sense to talk about innovation as a general category. After all, some, probably most, educational innovations are nonsense and ought to be resisted. I have found that most people distinguish between desirable and undesirable innovations and that their distinctions are not motivated solely by fear of unknown or stupidity. Resistance to change often is based on value priorities which differ from those of the developer of an "innovation."

As long as we continue to treat innovation as a general category, we will be unable to deal with the factors which account for why particular innovations are accepted (or rejected) by particular schools.

4. CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTORDUCTION AND USE OF NEW IDEAS?

If a particular school district has a sound history of the use of innovations in an earlier period, it certainly makes it easier for them to have more confidence in making regular curricular changes. If there have been examples of the adoption of innovative ideas that were not successful and that caused major financial or personnel crises, then school districts move much more slowly into major changes. Another factor that enters in is the presence or absence of some brave individuals at the administrative level who are not afraid of the consequences if the innovation or change is not successful and are willing to be more experimental with innovation.

If large sums of money are involved in the implementation of innovative products, then the school certainly does need general community support. Recent examples have been the numerous bond issues that have been defeated even though the curricular change would undoubtedly have been to the benefit of the majority of the students. Too often the benefits have not really been sold to the general community in the proper manner. With accountability coming more to the forefront each day individuals and groups of persons are going to have to be ocnvinced of the educational return being worth the outlay of funds, before additional innovation can occur. More effective public relations programs to produce general community support should certainly be considered.

Flexibility may revolve around the opportunity to bring about change on short notice, or within a reasonable period of time. A school does need flexibility in order to eadilyradopt or adapt new products and ideas. If it moves into a long range finanacial investment, such as bolted down furniture in classrooms, future innovative change will be slowed considerably and flexibility drastically affected. Or if the policy is that a certain set of textbooks must be used a minimum number of years, whether they fulfill a need or are still appropriate, certainly does cut down on flexibility. The use of hardback materials in certain school districts as differentiated from paperbound throw-away type materials is also an important factor

in saying whether or not the school has flexibility to change. School districts where paperbacks are allowed and lower material costs involved may bring about change more rapidly.

The level of academic training of teachers, supervisors and administrators may affect the adoption rate of innovation within a particular school in that if collectively they have had a wide range of experiences from which to make considered judgements, change may occur more rapidly. If on the other hand, the background and training of the staff is all of a conservative kind of philosophy or they mostly come from one kind of institution, then they may not have experienced some of the more unusual kinds of things that could happen in a school district and may be less inclined to consider innovation.

If one considers the median age or median level of experience of the faculty of a school or persons residing in the community as it affects the level of adoption or innovation he would also be asking the question whether or not things have gone well for a long number of years so that the community would not feel a need for change or innovation. On the other hand, even if a faculty or community resident has lived in the community for a long time, this may not be a factor if the schools have not been successful and the products being used are considered failures. They may move into a change situation just to overcome the failure rate.

When one considers the tax level of the community as it relates to the level of innovation and adoption of new materials or ideas, he has to consider the influence of availability of funds. And not so much the tax level but the percentage of the financial support that the community or region has in the past been willing to furnish to education. If an innovative change is going to result in a large increase in the tax revenue required, then the chance of change would certainly be decreased.

Some correlations between the levels of support that a school receives from federal or state sources and the rate or adoption of innovative materials and ideas certainly was evident when the NDEA funds were originally made available for science, mathematics and foreign language instruction. As noted earlier, when school

districts realized in laying out a certain amount of funds it in turn could have matching quantities, materials and instructional systems were suddenly adopted that hadn't even been considered earlier. At least in these three fields, the stimulation from what might be called "seed money" from the federal or state groups to local districts had a tremendous impact. Unfortunately, it may have been a situation in which those that already had, got more and those who were not able to produce even a little extra had to do without. Other characteristics of schools that discourag or encourage the introduction and use of new ideas may involve such items as the image the school or community has of itself as being innovative. There certainly are school districts, school boards and communities that like to think they are frequently at the forefront of change in education and are constantly looking for new ideas. Methods that they have found successful by some school system to get new ideas implemented include: seeing that their faculty and administrative staff members have an opportunity to participate in regional, national meetings and even in international ones; giving them a chance to do considerable travel; having an opportunity for time to read and study their own professional journals; and having structured opportunities to discuss possible changes within their own specific teaching areas.

Certainly the administrative leadership of a school board, including the superintendent, the principals, the department heads, and the faculty members enter into characteristics of the school. What their individual or collective attitudes are about change, how forward-looking they may be, how open they are to suggestions, and how willing they are to consider new approaches are all crucial. This is tied in with their past successes or failures when they made changes. In addition the available manpower and the willingness to lay out additional funds to make the suggested changes are involved. If excited enough, they may even find ways in which they can reduce costs so that funds are made available. For the most part it has been very difficult for school districts to eliminate a successful program and move on to another one that might be even more successful since they realize that change for change's sake is not necessarily always good.

4.0 Characteristics of the School: What are the characteristics of schools that discourage or encourage the introduction and use of new ideas?

The introduction of new science curricula is first in suburban communities where teachers receive better than average salaries. Better than average salaries generally go along with well equipped laboratories, teachers with advanced degrees, and parents with above average education (one or both have been to college). It has been difficult to introduce new science products into large city systems and rural schools.

There is a high adoption of new programs close around the center where the product was developed. Test centers for new products also show a high rate of adoption. Especially was this true in the early 1960's when testing schools received considerable publicity.

In the early days (1957-65) of the science curriculum improvement programs, schools were stimulated to investigate new programs by school board members or an interested citizen. Typically, the layman was an engineer, an M.D., a chemist, a county agriculture agent, or a scientist employed in industry. This was the period when professional journals carried editorials and articles encouraging scientists to become interested in the science programs of their schools or "Ivan will out-do

4.0

Johnny." Bester, Conant and Rickover, each in his own way, embarrassed schools into seeking new science programs. The AAAS placed science libraries in schools, the Atomic Energy Commission supported traveling high school demonstration teachers, the USOE provided money for equipment and NSF paid to retrain the teachers. Only the regions of the country that could not afford to match Federal funds (some New England states and the deep South) were actually prevented from taking advantage of the new programs if they so desired.

A factor in the adoption of new science programs was related to the educational level of the teacher. Although NSF institute programs were ostensibly open to all teachers, the selection committees of the colleges and universities chose for the most part the already best educated teachers. In the fifteen years or so of NSF and privately supported institutes, the "good" teachers were typically up-graded five or six times. It is estimated that only about 25,000 of the 125,000 science teachers took advantage of these programs. It should be noted that in a number of districts school administrators actually opposed having teachers participate in re-training programs because they were limited to science and mathematics teachers.

4.0 Characteristics of the School -

It appears that schools that have adopted one innovation tend to search for and adopt others. American Political Behavior was particularly well received in schools that had previously adopted the High School Geography Project and the Carnegie Mellon Project, and in school systems where there were individuals who had attended institutes on "new social studies"projects. Richburg found that schools who adopted the Georgia Anthropology Project tended to have previously adopted other new social studies materials.[1] However, in schools with a social studies field agent, lack of experience with innovations did not prevent teachers from trying new materials when they became aware of them. There does not appear to me to be a correlation between adoption of organizational innovations, like team teaching, or with adoption of innovative materials in other curriculum areas, like science or math, and use of social studies innovations.

Overt community support does not appear to be necessary for innovation, but perceived community hostility may be a barrier to trying innovations. In a recent pilot study I conducted, innovative individuals, innovative social studies departments and innovative schools seemed willing to try new programs even though they perceived risk in the community. Several teachers

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[1] Richburg, J.R., Curriculum Diffusion: Dissemination and Adoption of Materials in the Anthropology Curriculum Project, Unpublished Masters Thesis, University of Georgia, Athens, 1969.

in such situations reported that they simply plan in advance how they will handle challenges if and when they arise. Many individuals in audiences where I gave presentations on American Political Behavior, seemed to be less willing to take risks and were more skeptical of trying new programs that might be controversial in their community.

A willingness of individuals to try new things themselves, and a willingness of the group to re-arrange schedules, to re-assign funds, and to tolerate changes in behavior patterns of students and individuals seem to be important supports for change.

Among the audiences to whom I gave presentations on American Political Behavior (APB) there appeared to be no correlation between level of academic training or of age and willingness to adopt. Often those in a school who had the most units beyond their masters degree were the last to innovate. Often those who were the oldest and had the most experience as teachers or supervisors were the first to innovate. The reverse seems to be true in an equal number of cases.

I met with several social studies faculties where the median age was under thirty, and the department was one of the most resistant to new ideas; members were convinced they were already doing far better than anything an outsider could present to them.

Individual attitudes toward change and group norms seem to

be the most important characteristics of the school which facilitate or prevent the use of new ideas. Innovative departments usually have a place where members get together and talk about new ideas they've encountered which are relevant to social studies instruction. Teachers are willing to share information, ideas, and materials and they show interest in the new things others try. In those schools where teachers do not collaborate with one another, innovations do not spread and fewer new ideas are adopted by the various individual teachers. Creating climates supportive of innovation is a major task, one which is apparently beyond the scope of this conference.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

This may be a desirable but not a necessary condition that encourages innovation. Frequently the hiring of key new administrators or teachers who have innovative ideas is a sufficient input to trigger off new developments regardless of the previous history of the school in this regard. In a nearby medium-sized city in Michigan a flurry of innovative programs commenced with the appointment of a new social studies coordinator about 6 or 7 years ago.

4.2 Does the school need general community support in order to implement innovative products?

Here again I would judge this to be a desirable but not a necessary condition for innovation. I happen to live in a school community which has carried out a number of innovative programs most of which were initiated without widespread community involvement or even knowledge. The general rule here appears to be, "Let them try anything within reason, and if it blows up in their faces the community will express its concern."

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

I would consider the matter of flexibility to be a key ingredient determining whether a school does or does not adopt new ideas. My definition of flexibility is quite subjective in this context. It refers more to a pervasive spirit or a social milieu which encourages and promotes far out ideas. It in turn must rest upon a non-threatening feeling of confidence among most of the school personnel and a high degree of mutual respect for diversity within the system. When I was in the New England area I experienced extremes of flexibility and inflexibility in various communities on the outskirts of Boston.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

I don't think it is a matter so much of the level of academic training that influences innovation as it is the type. Specifically I have had contacts with some school systems in which classroom teachers held master's degrees and above, but this factor alone was not sufficient to encourage innovation. In fact, they frequently had the opposite effect. I have talked with many history teachers, for example, who appear to be less and less receptive to modifications in the high school history program as they accumulate more and more graduate level courses in history.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation?

It would be easy to make the glib generalization that innovations are resisted more by older faculty members than by younger faculty members. But my observations and feedback from many student teachers don't support this generalization. I am especially reminded of the several times my undergraduate student teachers return after their student experiences and tell about working with teachers who have had ten or more years of experience but who are highly receptive to and interested in innovative approaches. Here especially the data I have are probably a statistically invalid sample and so my observations are much more in the nature of hunches rather than hard facts.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community?

No data available.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovative materials and ideas?

Although I have no firm data to support my impression, I do refer you to my response to 3.2 which is also pertinent to this question.

4.0 CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of use of innovation before it is possible to get it to use new products?

No, I don't think so, but the teachers need to be alert to new and different ways to approach learning.

4.2 Does the school need general community support in order to implement innovative products?

No, I don't think so.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?

An essential element in adopting new products is flexibility in the timetable or the way the time in the school is organized. If the school is rigidly structured in 20 or 25 minute periods (or even 22 and ½ minutes, as one school I know) then there may be great difficulties in accepting new materials. Further, if teachers are rigidly organized into departments or subject areas, new interdisciplinary materials may be rejected without consideration.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school?

If the products are based in complex, interdisciplinary organization and theory, the rationale for their development may be lost to undertrained individuals.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation?

I don't think the age level affects it at all.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community?

Yes, since very expensive materials will be eschewed.

4.7 Is there any correlation between the level of support that a school receives from federal or state sources and the rate of adoption of innovative materials and ideas?

Yes, since it encourages school districts to seek out new products if they are assured of financial support for them.

4.0

CHARACTERISTICS OF THE SCHOOL: WHAT ARE THE CHARACTERISTICS OF SCHOOLS THAT DISCOURAGE OR ENCOURAGE THE INTRODUCTION AND USE OF NEW IDEAS?

4.1 Does the school need to have a sound history of the use of innovation before it is possible to get it to use new products?
No

4.2 Does the school need general community support in order to implement in-novative products?
To do this question justice, the general community needs to be analized. There are some elements of the general community that can help, many that will neither help nor hinder, and a few that can precipitate a general calamity.
Schools should have the positive support of:
the board of education
the local newspapers
the local church leader if the community has a strong, single church
parent-school associations
teacher affiliations or teacher unions
It is generally impossible to get the support of reactionary organizations such as the Citizen's League for Lower Taxes and the like.
The answer is clearly yes. The question of generating support and avoiding lethal action before a program can become established is a complex one, and in general, is specific to each community.

4.3 What degree of flexibility does a school need in order to readily adopt or adapt new products and ideas? How do you define flexibility?
Schools are agencies of society. As such, their conduct is governed. Some schools have managed to generate a receptive, supportive atmosphere; others seem to be the perennial whipping boy. A careful analysis of administrative practices and public relations efforts is needed in identifying schools which are "innovation prone."
Flexibility: the antynym of rigidity. I would think that community sensitivity coupled with a clear and translatable understanding of what schools should be up to - is how flexibility would be defined in this context.

4.4 How does the level of academic training of teachers, supervisors, and administrators affect the adoption rate of innovation within a particular school? Most studies seem to indicate that the correlation between academic training and "quality teaching, supervising and administering" is not very high. I would choose to look at the specific elements of the training, including internships within systems where there is a receptivity to sound, innovative practices, if I were looking for high, positive correlations.

4.5 How does the median age or median level of experience of the faculty of a school or persons residing in the community affect the level of adoption of innovation? From experience, I would say that a young, recently educated faculty and a young community with a fairly high education level would be the most receptive.

4.6 Is the level of innovation adoption of new materials or ideas influenced by the tax level of the community? Yes, but only indirectly in that the tax level, imposed by the residents, is an indication of the educational values structure of the community.

4.7 Is there any correlation between the level of support that a school receives from federal or state cources and the rate of adoption of innovative materials and ideas? Yes - in general, one of the smallest items within a school budget is for teaching materials. Many federal and state grants focused directly on this budget item and hence, had great influence on acquisition of needed innovative materials.

4. SCHOOL CHARACTERISTIC

a. Isolated innovators often run into serious acceptance problems. If two or Three respected teachers in a school are willing to try the materials the chances are high. But young beginners trying to buck them will likely get ostracized.

b. Some school districts try using staffing and central policies to get innovation dissemination. This produces considerable stress.

c. More districts are merely willing to leave the initiatives to teachers. If the innovation will generate favorable publicity or student interest. the administration is pleased. But they don't lead toward innovation. A situation where teacher initiatives are listened to promotes innovation.

d. Students have brought about some change. Ten years ago values and controversial issues as subjects for the curriculum were unpopular. Now many schools accept the idea of including the study of values and of controversy as legitimate.

e. Does person who orders materials (text, etc.) do so arbitrarily or seek team participation?

f. Does social studies faculty control its own resource center or can they decentralize the library to fit their curriculum?

g. The currency of a faculty can be crucial. If they graduated from an institution where new curriculum developments are not mentioned, they miss the whole movement and remain unaware once they get a job.

4.0 Characteristics of the School: What are the characteristics of schools that discourage or encourage the introduction and use of new ideas?

4.1 My experience indicates that, although it's helpful to have a school district or an individual school that has a history of experimenting with a variety of educational products, it is often the case that an individual teacher or a particular department within a school is amenable to innovation. This is to say that within any given school district or individual school, there may be individuals or small groups who are willing and able to innovate even though the district or school is reluctant.

4.2 In some cases, general community support is necessary, and in other cases not so. For example, the introduction of "Man: A Course of Study" into a community (e.g. Phoenix, Arizona) without general community support creates fantastic controversy and disorder. On the other hand, the infiltration of existing curriculum frameworks and courses with only minor modifications does not usually require anything but school people as supporters.

4.3 If flexibility means the freedom and power to choose among and allocate various resources, then it seems to me a school needs most if not all of the following characteristics of flexibility in order to readily adopt or adapt new products or ideas:

--School district and building administrators should have flexibiltiy in the assignment, load and transfer of teaching personnel.

--Within a given school, the principal should have the ability to utilize a variety of student-teacher organizational patterns (e.g. large group, small group, independent study, non-graded, multi-graded, etc.).

--Individual teachers should be able to use a variety of in-class student grouping patterns.

--A school district or school or teacher needs the flexibility to allocated funds budgeted for curriculum materials for a variety of non-textbook products.

--Within a given school sufficient released time for inservice programs is necessary to insure retraining of teachers to use new products and ideas.

4.4 The data that I have scaned indicate very low correlations between academic background of teachers and effective use of new curriculum packages. This has been confirmed in such projects as SRSS and HSGP. Another set of data with respect to school administrators indicates that climates of innovation are primarily set by the building administrator on the individual school level.

4.5 I have seen scant data related to the question. A few studies indicate that having some teaching experience is positively correlated with receptivity to change. This is to say, that a perceptive, experienced teacher has had the opportunity to observe the needs and problems of students, whereas the novice teacher, though young and enthusiastic, is also likely to possess a variety of biases totally unconfirmed by experience.

4.6 The chief consideration here is that the school district or school has sufficient monies available for purchase of new materials and for released tome for inservice training of teachers. Although these two factors are related to per pupil expenditures in a school district, the difference between communities with respect to tax monies available may be only reflected in newness of buildings and teacher salary schedules. This is to say, that the percentage of the budget allocated for inservice and curriculum materials is more important than the total amount of money expended for education in the school district.

4.7 I suspect that school districts with growing populations and increasing funds for education have more "wiggle room" in juggling budget categories from year to year than do districts with stable or declining school populations. This suspicion would suggest that new towns and suburbs are more financially able and flexible to finance curriculum innovations than are established towns and large cities.

4.8 It may or may not be significant that most of the descriptions in the literature of implementing curriculum innovations are case studies of individaul schools rather than of school districts. School districts tend to innovate in organizational patterns (e.g. Berkely, California Alternative Schools Within a Public School District), whereas it is individual schools which are the subjects of descriptions of teaching and curriculum changes.